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Title : Movements and diving of ringed seals in the Beaufort and Chukchi seas, 1999-2003

Category : Conservation

Student : Not Applicable

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Abstract : To examine the range, distribution, diving behaviour and habitat relationships of the ringed seal (*Phoca hispida*) in Canada's Western Arctic, sixteen (8 males, 8 females) were captured, measured, tagged with satellite-linked (SDR-10 or SDR-16) transmitters (304 g - 539 g) and released near Holman, NT and Paulatuk, NT Canada. Tags were applied post-moult and as soon after break-up of the sea ice as possible near Holman in 1999 and 2000, and in late fall 2001 and 2002 near Paulatuk, NT. Signals were received for 8-333 days (mean 143 days), with 11.5% of locations being of ARGOS quality 1, 2 or 3 (accurate to within 1 km or less). Three of four adult seals left the Holman area within a few days of tagging, and travelled to distant Viscount Melville Sound (600-1000 km to the northeast), remained there for 2-6 weeks, then returned to waters near Holman just prior to freeze up where they spent the winter. Of the eight seals tagged near Cape Parry during fall, all moved westward to the Chukchi and East Siberian Sea within days of tagging, travelling up to 2500 km in six weeks. All of the seals followed a similar route along the shelf break of the Beaufort Sea off of Alaska. The duration and depth of dives made by the tagged seals, and the rate of movement of seals through an area where a seismic vessel was active, are presented.